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ABSTRACT

Social scientists who begin a public health education intervention by surveying the literature would be hard-pressed to find guidance about what to do and what to avoid when planning the media strategy of their campaign. What is needed is a media strategy to develop the greatest control possible over community exposure to the messages of the campaign. The planner is confronted with a number of factors and decisions when planning a media campaign: different media have different capabilities, many radio and television stations frequently run public service announcements when they cannot sell commercial time, different people use different media at different times, and the audience may be fragmented. Two current public health interventions that demonstrate well-constructed mixes of available media are the California Alcohol Problems Prevention Demonstration Project and the Stanford Heart Disease Prevention Program Five-City Project. The two approaches--one with the luxury of a sizable campaign budget and another with a minimum of funds--can provide models for planning the use of various media that should be at the planner's disposal. In any case, audience delivery can always be estimated, given access to the appropriate resource materials. For example, audience use across media can be determined through a standardized process of computing multiple ratings and then eliminating duplication of people who utilize more than one medium. Through judicious planning, as well as with the cooperation of the media, both broadly based and specifically focused media strategies are achievable. (HOD)

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KEEP YOUR EYE ON THE MOVING TARGET:
Planning Mass Media for Public Health Interventions

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The history of public information campaigns has been anything but smooth. The perception of the effects of mass-mediated information has been closely linked to the state of the art in the field of communication theory and research. At various times, those who have evaluated the effects of public interventions have concluded that the media are: 1). All Powerful (the so-called "hypodermic needle" era) and, therefore, very useful; 2). Powerless (the "no effects" era) and, therefore, useless; and now 3). Somewhat Powerful (the "limited effects" era) and useful under certain circumstances (Atkin, 1979; Hochheimer, 1980; Schramm, 1971; Solomon, 1980).

Within this current era of limited effects, many scholars have divided the variables of persuasion into five major steps: Source, Message, Channel, Receiver, and Effects (Atkin, 1979; McGuire, 1969, 1974, 1980; Roberts, 1975; to name a few). Further, those who attempt to identify the particular cirumstances by which these variables can be manipulated most successfully have focused almost entirely upon the Source, Message, Receiver, and Effects factors (Mendelsohn, 1973; Hochheimer, 1980). Scant, if any, attention has been paid to what might constitute a good procedure for the proper selection and utilization of Channels.

McGuire (1969,1974,1980), for example, focuses his discussions on the degree to which the use of different channels has a demonstrable effect on the perception of any particular message. In reviewing this area, he found that the few studies devoted to defining the conditions in which the use of one channel may be better than another have focused primarily upon whether a print message is more effective than a radio (or television) message, or whether face-to-face contact has more persuasive impact than watching films, etc. Atkin (1979) concludes that the choice of which channel to use "depends on the configuration of source, message, and target audience factors, but television tends to be the superior medium for most purposes" (p. 664). Roberts (1975) skips the issue entirely.

More specifically, reviewers of alcohol-abuse public education campaigns (Blane, 1976; Blane and Hewitt, 1977; Hochheimer, 1980) report that the literature typically devotes little, if any, space to a discussion of how the choices of the particular media used were made, how and when each medium was used, and what problems were encountered in interacting with people who work in the business world of each medium. From a strictly scientific perspective this is unfortunate, since it makes replication difficult, if not impossible.

A social scientist who begins a public health education intervention by surveying the literature would be hard-pressed to find guidance about what to do and what to avoid when planning the media strategy of her/his campaign. It is as if s/he has been condemned to discover what to do in isolation, since the bulk of the academic literature provides little help.

These channel factors (i.e., the varied mix of the available media) cannot be fixed; they are the product of a number of interacting forces which are constantly changing. Within any media market there exist a varied number of radio and television stations, newspapers, magazines, billboard companies, etc. The structure and output of each is influenced not only by its internal composition (e.g. who owns it, how many people work for it, what [if any] network or syndicate it is affiliated with, what type

of programming or editorial content it has), but also external factors as well (e.g. the state of the local or national economy, how many competitors it has, the size of the market, the nature of the audience, etc.).

Not only is it extremely difficult to generalize from one market to another, but it also may be hard to generalize within one market over time. For example, new trends in music or changing tastes of the population may lead some radio stations to changes in their formats. Thus, the strategic mix that once worked in a particular market might not necessarily be useful for future interventions.

Further, within a given market, the costs of purchasing time and space in the different media vary within and between organizations. The relative position in the ratings for each radio and TV station, versus their competition, as well as the specific programs, is a key factor; costs are also set by the announcement length and time of day and/or specific program in which it runs. Newspaper and magazine space vary depending upon the size, placement, coloration, and frequency of the ads. Each station, newspaper, etc., sets its own advertising rates, and these vary over time, too.

Finally, the amount of money available for the mass media component of the intervention is also a variable. Some programs have a sizable amount of money at their disposal to buy advertising time and space (Wallack, 1978, 1979); others have none (Maccoby and Alexander, 1980). This factor must, obviously, be taken into account when planning the most appropriate media mix for a public health education intervention. Although most public education campaigns are constrained from mounting huge multi-million dollar efforts due to budgetary restrictions, a judicious use of the various available media is still possible.

Reports of the research on channels has not been very helpful, however. Atkin (1979), as previsouly cited, advises that television "tends to be the superior medium for most purposes." The result is that many campaign planners have used this "TV Big, TV Good" strategy for their interventions. They create a number of messages which they deliver to television stations as Public Service Announcements (PSAs). They then attempt to convince station managers and/or program directors that their cause is an especially important one and that they would appreciate any assistance that the station could provide. At this point they assume that they have effectively utilized the media and their responsibility and control over their media plan end.

What frequently occurs is that the station will run the PSA during times when they have not sold all available advertising positions, i.e., in the night or early on Sunday mornings. When this happens, the campaign strategist has minimal control over which particular spot announcement goes on at what time (Blane and Hewitt, 1977; Hochheimer, 1980; Wallack, 1978). Also, regardless of which of several messages might have run, the the strategist has no way of knowing whether the intended population has been exposed to the messages and to what degree.

What is needed is a media strategy to develop the greatest control possible over community exposure to the messages of the campaign.

Typically, the credit for the success of advertising has been attributed to artful creative work. Little, if any, notice is given to the planning of the best media available to reach the target population, as well as the best message placement within the individual vehicle, for both the widest dissemination of the message and the most effective use of the advertiser's dollar.

Even if the intervention is restricted to a media budget of zero dollars, there are still decisions to be made about the allocation of emphasis between media, the right time to go with particular messages as parts of the campaign, and knowing when to re-evaluate the strategy to make necessary changes (Greyser, 1975). The media link is the most important one in the chain since, in the words of a broadcast veteran, "You can't sell 'em nothin' if they don't see the spot."

MEDIA OVERVIEW

The campaign planner is confronted with a number of decisions when planning media. First, different media have different capabilities. Television and radio can be used for spot announcements, public affairs programs, interviews, and entertainment programs. Mendelsohn (1973) showed that a well-planned educational program ("The National Drivers Test" on CBS) can be entertaining. The Stanford Heart Disease Prevention Program (SHDPP) also used this type of entertainment format in creating the "Heart Health Test" aired during its Three-Community Study (Maccoby and Farquhar, 1975), and has used an updated version in its current Five-City Project.

Spot announcements in the broadcast media can call attention to both special programs and to various themes the implementers of the survey wish to convey. Typically, spot announcements on the electronic media must be short (one minute, usually, for radio; 30 seconds for TV; often shorter for free PSAs), but can contain quite a bit of information.

Newspapers and magazines can carry doctors' columns which can give people advice and information to increase their awareness of the particular health problems associated with the campaign. Such has been the case with the SHDPP Three- and Five-Community studies and the California Alcohol Prevention Demonstration Program (Maccoby and Farquhar, 1975; Maccoby et al, 1977; Wallack, 1979).

Billboards can carry slogans associated with the campaign. This medium is best utilized to communicate short messages, acting primarily as a reinforcement of the key points of the campaign. Also, long copy can be impossible or dangerous for drivers to read, so billboard messages of length are best avoided.

Other media can also be used. Among these are news stories generated by press releases, TV and radio interviews, business cards, direct mail (Maccoby and Alexander, 1980), pamphlets, newsletters, films, subway and bus cards, and the insertion of campaign materials into paychecks and family allowance checks (cited in Blane and Hewitt, 1977). As noted for billboards, bus and subway cards, and business cards (called "out-of-home" media) must be very short, usually containing only the most

essential information.

PUBLIC SERVICE CLUTTER

As mentioned earlier, a problem frequently encountered by intervention planners is that while many radio and television stations take PSAs, they usually run them when they can't sell commercial time. The usual reason for unsold time is that audience levels (and corresponding rates) are so low that the stations are not selling the time or the loss of that sale is minimal.

There is also the confounding factor that other program planners, who are equally convinced of the importance of their campaigns, are also asking the stations' managements for time. Thus, the Stanford Heart Disease Prevention Program, for example, may very well be asking for time simultaneously with the American Cancer Society, the American Dental Hygienists Association, the National Forest Service, and many, many others.

If the campaign has no money with which to buy spots at more convenient times, other methods may be quite effective. For example, all radio and television stations are licensed by the Federal Communications Commission (FCC) and are mandated to operate in the "public interest, convenience, and necessity." Leaving aside a discussion of whether or not they seriously attempt to fulfill that mandate, they must re-apply for their licenses every three years. At that time, the FCC becomes somewhat interested in how each station has fulfilled its public service requirements. When planning the media campaign, it might be prudent to remind the station management of this. One could promise to write the FCC a letter, commending the station for its assistance in promoting the public's health and welfare, for inclusion in the station's renewal file. This frequently engenders a positive response.

Another technique is to organize the local media into an ad hoc consortium. Each station would be responsible for a part of the overall project (perhaps production of spots, donating space for public meetings and the like); each would share the costs of the media; each would benefit from the positive response (both within the community and within the industry) such a project would spawn. Such was the case with "The Drum", a program initiated by WBUR-FM (Boston) in the 1960's. "The Drum" was a nightly radio program that provided information and entertainment to the Black community of Boston, as well as being a training program for many Black men and women. "The Drum" was a cooperative venture of Boston's major radio and television stations, which provided funds for the program, and employment for the "Drum" trainees upon its completion. Several people who began their careers with "The Drum" are still active in the media, underscoring its success.

Another aspect of controlling PSA clutter is to coordinate all campaigns Maccoby, 1979). In many alcohol abuse programs, for example, much confusion arose because the public was exposed to a wide variety of messages from both local and national sources which competed for the attention of the public giving, at times, contradictory information (Blane and Hewitt, 1977; Harris and Associates, 1974). The messages from each medium must

be keyed to the others. Such a combination has run in California focusing on alcohol abuse (Wallack, 1978, 1979) and heart disease (Maccoby, 1979).

THE MEDIA MIX

A most important consideration is who utilizes what media and when. For example, teen-agers listen to radio more frequently than they watch television (Comstock et al, 1978). Further, FM radio has grown so much in the last fifteen years that it now attracts a larger audience overall than AM radio (Media and Marketing Decisions, 1979), and it is now considered the primary medium for reaching teenagers in most major markets.

Those whose primary language is Spanish usually utilize Spanish-language media which often comprise one or two radio stations, some TV programming, and perhaps a newspaper. Additionally, magazine audiences are determined by their editorial formats (eg., Rolling Stone versus U.S. News), and newspaper editorial focus will often determine the demographic profile of its readers. Different times of different days attract different audiences to radio and television (Comstock et al, 1978), as do format (progressive rock versus all news) and program content differences ("Saturday Night Live" versus "60 Minutes"). It is essential that some sort of formative evaluation be conducted to determine which media and the available vehicles the targeted population will most likely to be using.

If time and space can be purchased, particular messages are best placed where they will appeal to the targeted audience. For example, in California, two frequently used spots by the Alcohol Problems Prevention Demonstration Program were placed during the morning "Today" show and the evening "Saturday Night Live" program (both on KRON-TV, Channel 4 in San Francisco, an NBC affiliate). The "Today" spot featured a businesswoman refusing an additional drink over lunch; the spot used during "Saturday Night Live" featured musicians in a rock music band convincing their drummer that it is not necessarily "cool" to be drinking while playing music. Although both spots end with the message, "Winners Quit (Drinking) While They're Ahead", they are targeted to very different audiences of the same television station.

A constantly fluctuating factor which must constantly be considered is cost, further underscoring the volatility of the channel factor. If one purchases December TV time in November, it will probably be more expensive than if purchased in October. However, TV time in January wil be cheaper than December's no matter when it was purchased, because demand is low although TV viewing is high. The most expensive TV months are November and December, the cheapest are January-February and July-August, while radio rates are at their highest in the summer. And, of course, all of this can vary by a variety of market and external pressures.

Using these concepts, one can direct PSAs to specific populations during the programs and at the times when they are most likely to be watching TV, while minimizing exposure to persons not considered target prospects for the intervention messages. For example, PSAs advocating methods for reducing

stress in men over 35 would be wasted if shown during most Saturday morning cartoon programs, as would PSAs showing teen peer pressure to learn drinking counter-arguments running during the "Lawrence Welk Show." Well-planned placement of PSAs can maximize the effectiveness of television as part of the overall strategy. This is always achievable for a paid campaign and should be attempted even if no money is available.

SAMPLE TELEVISION PLAN

Another area to be considered is audience fragmentation. In Los Angeles, for example, there are over 70 radio stations; most are programmed in one of 14 major formats (disco, soft-rock, progressive rock, Top 40, jazz, Black, country, middle-of-the-road, beautiful music, Spanish, classical, talk, news, and religious); and each format targets its appeal to a different audience, or to the different needs of a specific audience. Those who create and place messages should aim the content and style of their radio spots to appeal to the tastes of those audiences. Anyone who has heard a rock and roll spot on a classical music station, or a commercial featuring Johnny Cash on a Black-oriented jazz station, can attest to how intrusive the contrast in sounds can be. The incongruity often creates hostility to the message, greatly limiting its ability to communicate. Since adolescents listen to radio more than they watch TV, the potentials of this medium should not be overlooked, but the pitfalls can be avoided.

TWO MEDIA PLANNING DESIGNS

Two current public health interventions demonstrate well-constructed mixes of available media. One, the California Alcohol Problems Prevention Demonstration Project, has the luxury of a fairly sizable budget to buy media time and space (Wallack, 1979). The second, the SHDPP Five-City Project, does not have the money to buy media, but it does provide a model for the more effective utilization of the media than has previously been reported in the literature (Maccoby and Alexander, 1980). While neither provides THE model for subsequent media planners, they do show that a variety of approaches can be successful.

The California Alcohol Problems Prevention Demonstration Program is noteworthy for a number of reasons:

1. It is the first major alcohol abuse intervention which uses paid time and space in a variety o. mass media to convey a drinking moderation message;

2. It uses a warning label format, "Winners Quit (Drinking) While They're Ahead", to convey its slogan;

3. It uses more intrusive techniques than the normal public service "testimonial" presentation;

4. It is committed to using mass media for a fairly long period of time (3-5 years), which is substantially longer than most alcohol abuse mass mediated interventions (see Blane and Hewitt, 1977); and

5. It ties the mass media campaign to an intensive community organization and information program (Wallack, 1979).

The mass media model was developed by Pacificon Productions (1978) and is defined as follows:

> The model calls for a positive, upbeat approach to the assignment of preventing alcohol abuse. The messages are clearly aimed at people who could be classified as "normal" drinkers, NOT abstainers or at people who are well along the road to alcoholism...These targets are being more narrowly defined for dofferent flights of the media. For example, Year One targets were exclusively 18-35 males. This group will be addressed again in Year Two, but the primary emphasis will switch to adult women.

Paid time is used because this is the best way to guarantee the exposure of a particular audience to their message (and, of course, the budget allows it). However, the program planners ran into some political problems with the particular spots they produced, causing them to have to buy time on short notice. Due to the deadline pressure this placed on the stations, the control over exact placement of spots was somewhat diminished, thus reducing the efficiency of their media buy. Also, since advertising rates tend to go up, not down, over time, fewer spots could be afforded due to the delay. Therefore, less overall efficiency from their advertising budget was realized (Wallack, 1979).

The SHDPP Three-Community Study was the first major community education program which showed that the mass media could be used to teach positive health behaviors to the general public (Maccoby and Farquhar, 1975; Maccoby et al, 1977). The Three-Community Study chose as its target all adults aged 35-59 in the two treatment communities. The major stages of the campaign design were: agenda-setting, informing, training, motivation and reinforcement, and self-maintenance. The most credible

and effective messages were determined through the use of baseline surveys. These were coupled with a continuous retesting of multiple approaches to discern which messages were most effective with their various target groups, which approaches needed refinement, and which were non- or counter-productive.

The media campaign consisted of a mix of messages targeted through the media available in the two treatment communities: Gilroy and Watsonville, California. The materials produced covered a broad range: TV spots, three hours of television programming, radio spots and programming, newspaper advertisements and stories, weekly print columns, billboards, direct mail, and calendars, among others. Using a formative evaluation, SHDPP determined that although Spanish-speaking adults watch a lot of television, they generally turn to the radio for information. SHDPP discovered that it could not simply translate English-language spots into Spanish to reach the target area's large Chicano population. Rather, different messages were developed based on the popular "radio-novella" format (Maccoby and Alexander, 1980).

Once the campaign had begun, the preliminary data was supplemented with a series of informal interviews and observations to provide media planners with immediate responses to particular media events in order to reinvest their findings in future program plans. These tests showed when particular components were having a positive, negative, or neutral effect, and appropriate changes could be made. Thus:

> "(T)he overall campaign activities could be seen as an orchestration of discrete media events that occurred in many channels with common themes, styles, and content; a monitoring mechanism was occassionally activated to provide feedback on both the efficiency and reliability of the distribution system and the public response to current media events. In this way, flexible planning within practical limits was possible to refocus priorities, reset directions, and, in general, to modulate the course of the campaign in directions likely to promote further progress" (Maccoby and Alexander, 1980, p. 362).

The Stanford Heart Disease Prevention Program is currently utilizing the same approach for making optimal use of the media in its Five-City Project in California.

ESTIMATING THE AUDIENCE

In order to construct a format to demonstrate how audience delivery can be analyzed once the campaign has run, we have developed a hypothetical media plan for a moderately-sized intervention target area, along with a hypothetical number of radio and television stations, and two newspapers.

Data can be obtained from a variety of sources, including the stations and publications, but some sourebooks generally utilized for evaluating a local market campaign are:

1. Television	Nielsen or Arbitron (ratings) and stations (costs)
2. Radio	Arbitron (ratings) and stations (costs)
3. Newspapers	Standard Rate and Data Service (SRDS)
	Newspaper Reports (costs, sizes, etc.)

Television ratings data are reported quarterly, semi-annually, or annually, depending upon the size of the market. The markets are geographically designated areas, termed Designated Market Area (DMA) by Nielsen, or Area of Dominant Influence (ADI) by Arbitron. The DMA is that area covered primarily by the signals of one or more television stations emanating from one location. DMAs and ADIs are composed of counties so, for example, those counties primarily reached by TV stations from New York are in the New York ADI or DMA, while the area primarily reached from Philadelphia is in the Philadelphia TV market. This is easily determined by information provided by either ratings service.

Since the 200+ DMAs have a great variance in size of populations, the media plan in this report is for an average DMA of about 165,000 households, of which 160,000 (96 per cent) are households with at least one television set. Within this DMA lie the two target communities (metro areas) for the hypothetical health information intervention, with a combined population of 120,000 people, 40,500 households and 39,000 TV households.

Although the typical TV viewer in this intervention area may have a variety of channels from which to choose (such as cable television, video cassette recorders, and the like), the use of such extraneous channels is nowhere near universal as yet. Also, the channels which may be generated from outside the DMA may also be received by viewers in the control communitites of our intervention; using these channels might cause an unwanted contamination of control conditions. Therefore, this plan will be confined solely to the stations within the target communities' DMA.

There are three TV stations that comprise the hypothetical DMA: Station ATV is affiliated with the ABC Television Network, Station CTV is affiliated with the CBS Television Network, and Station NTV is affiliated with the NBC Television Network. There are no independent (non-network affiliated) stations in this DMA.

Three statistics are commonly reported to describe the nature and size of the TV viewing audience: Rating, Share, and Cume. It is necessary to understand these in order to plan an integrated analysis.

The RATING is the percentage of all TV households (or teens, Women 18+, etc.) which is tuned into one particular station at any one time. The SHARE is the percentage of TV households (or Children 2-11, Men 18+, etc.) tuned into a particular station at any one time. The share is always greater than or equal to the rating for any one particular station; the shares of all stations during any time period always equal 100 per cent. The CUME is the

number of households (or Women 18-24, Children 6-11, etc.) who tune into any particular station for at least six minutes over a designated period of time. Thus, among all TV households, for example, M*A*S*H may have a 24 rating (24 per cent of all TV homes watching it), a 42 share (42 per cent of all households watching TV at 9 pm on Monday are tuned in to M*A*S*H), while the cume for the season is 89 (89 per cent of all TV households were tuned in to M*A*S*H for at least six minutes at least once during the season). The same rating, share, and cume statistics may be computed for any of the demographic groups reported by the ratings organizations.

Table 1 shows population estimates by DMA and Metro areas. Table 2 provides a breakdown of how many people watch the three stations over the course of a week averaging across time periods (dayparts) and different days.

TABLE 1

Estimated Audience Size of Differing Demographic Groups in Hypothetical Intervention Area

	DMA	Target Communities
Total Households	163,100	40,600
TV Households	156,500	39,000
Persons 2+	445,000	112,600
Persons 12-34	178,000	45,000
Persons 18+	204,000	51,600
Women: 18+	173,000	43,800
18-34	67,000	17,000
18-49	105,000	26,600
25-49	74,000	18,700
25-54	86,000	21,800
25-64	109,000	27,600
50+	68,000	17,200
15-24	43,000	10,900
Men: 18+	153,000	38,700
18-34	64,000	16,200
18-49	98,000	24,800
25-49	68,000	17,200
25-54	79,000	20,000
25-64	100,000	25,300
15-24	43,000	10,900
Teens 12-17	47,000	11,900
Girls	23,000	5,800
Children: 2-11	72,000	18,200
6-11	42,000	10,600
Working Women	58,000	14,700

TABLE 2

Sunday-Saturday Ratings, Shares, and Cume, 7 am-1 am, by Station

TV Station	CTV	ATV	NTV
	%	%	%
Rating	4	7	7
Share	17	28	25
Cume HH(per week)	74	81	80

The ratings for the three stations are: CTV, 4; ATV, 7; and NTV, 7, and are multiplied by the population estimates in Table 1. This means that at any one time, roughly 4,600 people were watching Station CTV, while about 7,900 people were watching either ATV or NTV. Overall, Station ATV has an average 28 share of the Metro audience (of all TVs tuned in at any one time, 28 per cent are tuned to ATV), NTV has a 25 share, and CTV has a 17. Cumulatively, 81 per cent of all households in this intervention area tuned in ATV at some time during the week, 80 per cent tuned in NTV at some time during the week, and 74 per cent watched CTV.

Tables 3, 4 and 5 provide a breakdown of the different dayparts by various target populations (TV Households, Children 2-11, Teens 12-17, Females 18+ and Males 18+) for the May, 198-, February, 198-, and July, 197- rating periods. Three periods are often used by planners in order to spot possible trends. Each number is a rating. The numbers are used are estimates of who is watching which station during particular dayparts. Then, depending upon which audience is chosen to be targeted, the planner can decide when to run particular PSAs. Table 1 provides a breakdown of viewers by age and sex in the entire DMA, and the number of expected viewers in the intervention area. Using Table 1 with the ratings provided in Tables 3, 4, and 5 for specific dayparts, the corresponding figures can be multiplied to yield a rough estimate of how many people, in which demographic group, were watching any station at any particular time. A planner can use audience ratings to determine strategy for placement of PSAs and then determine, after the PSAs have run, how many households or people were potentially exposed to the messages.

The following will provide some examples of how the data are used. Table 3 shows the ratings for station CTV. In the Monday-Friday 8-11 pm daypart (during May, 198-), CTV shows a TV Household (HH) rating of 11. This means that an average of 11% of the 39,000 TV households were tuned into this channel.

The next column shows that Children (2-11) had an average rating of 3. Table 1 shows that there were 18,200 children of that age in the target area, so 3% X 18,200=about 500. Teens have a 9 rating, and Table 1 shows 11,900 Teens; so, the number of Teens watching CTV during that time period is 9% X 11,900=1,100. Similarly, average ratings in that category show 3,900 Women aged 18 and over (F 18+), and about 2,700 Men (M 18+). Tables 4 and 5 provide similar rating data for Stations ATV and NTV.

TABLE 3

Metro/DMA Ratings Station CTV

	MAY 198-					FEBRUARY 198-					JULY 197-				
				F	M				F	M				F	M
DAY/TIME	HH	2-11	12-17	18+	18+	HH	2-11	12-17	18+	18+	HH	2-11	12-17	18+	18+
Mon.-Fri.															
7-9 a.m.	2	4	-	1	1	2	4	-	1	-	2	5	-	-	-
9 a.m.-Noon	1	-	-	1	-	1	1	-	1	-	2	-	-	2	-
Noon-4:30 p.m	2	1	1	2	-	2	-	1	2	-	2	-	-	1	1
4:30-6 p.m.	4	2	1	2	2	4	2	2	3	2	2	2	-	1	1
6-7:30 p.m.	8	4	3	6	5	6	2	1	4	4	6	-	-	5	3
7:30-8 p.m.	16	11	5	12	12	14	8	10	10	9	7	2	2	5	4
8-11 p.m.	11	3	9	9	7	11	4	6	8	7	9	4	2	8	6
11-11:30 p.m.	4	-	-	3	2	2	-	-	1	1	2	-	-	1	-
11:30-1 a.m.	2	-	-	1	1	1	-	-	1	1	1	-	-	-	-
Saturday															
9 a.m.-1 p.m.	4	10	3	1	1	4	10	6	1	2	3	11	2	1	1
1 p.m.-6 p.m.	4	1	3	2	3	5	2	2	2	4	4	-	-	3	3
6-7:30 p.m.	14	8	4	11	10	14	7	4	9	9	11	3	1	8	8
7:30-8 p.m.	19	1	-	16	12	17	3	-	12	10	14	-	-	11	0
8-11 p.m.	12	8	9	9	10	9	1	6	6	6	5	1	4	4	5
11-11:30 p.m.	4	-	2	2	3	4	4	6	3	3	2	-	13	1	1
11:30-1 a.m.	2	-	-	1	1	2	2	3	2	2	-	-	-	-	-
Sunday															
7 a.m.-1 p.m.	2	-	1	2	2	3	-	2	1	3	1	-	-	1	2
1-6 p.m.	4	1	1	1	3	5	2	4	3	3	3	-	-	2	3
6-7 p.m.	8	1	1	5	5	8	4	5	5	6	5	1	1	2	2
7-11 p.m.	17	2	3	14	11	16	2	5	12	11	14	3	1	13	1
11-11:30 p.m.	2	-	-	2	2	2	-	-	2	1	1	-	-	2	2
11:30-1 a.m.	1	-	-	1	-	1	-	-	1	-	-	-	-	-	-

TABLE 4

Metro/DMA Ratings Station ATV

	MAY 198-					FEBRUARY 198-					JULY 197-				
				F	M				F	M				F	M
DAY/TIME	HH	2-11	12-17	18+	18+	HH	2-11	12-17	18+	18+	HH	2-11	12-17	18+	18+
Mon.-Fri.															
7-9 a.m.	8	2	2	7	3	9	1	1	6	4	7	-	-	5	3
9 a.m.-Noon	3	1	-	3	-	3	3	2	3	-	6	7	4	5	-
Noon-4:30 p.m.	6	1	3	6	1	6	3	4	5	1	9	2	7	9	1
4:30- 6 p.m.	6	2	2	4	2	7	4	6	5	3	8	2	-	6	5
6-7:30 p.m.	10	2	4	9	7	2	4	6	10	7	6	2	4	5	5
7:30-8 p.m.	5	2	4	4	4	0	6	6	8	5	7	2	2	5	4
8-11 p.m.	15	7	14	12	10	1	9	12	17	14	14	13	15	10	10
11-11:30 p.m.	4	-	-	3	3	8	1	3	6	6	3	-	2	3	3
11:30 p.m.-1am	2	-	-	2	1	2	-	1	2	2	3	-	-	1	1
Saturday															
9 a.m.-1 p.m.	3	9	4	-	-	5	14	6	2	1	3	9	2	1	1
1 p.m.-6 p.m.	5	2	4	3	4	0	5	4	7	8	4	2	-	2	3
6-7:30 p.m.	8	5	4	6	7	4	12	11	10	11	8	2	1	7	7
7:30-8 p.m.	8	8	4	6	7	2	19	13	12	10	3	-	-	5	3
8-11 p.m.	16	9	14	14	11	4	14	11	21	19	16	14	29	14	11
11-11:30 p.m.	5	-	2	5	5	9	-	4	9	8	6	-	2	5	6
11:30-1 a.m.	2	-	1	2	2	1	-	3	1	1	3	-	-	2	1
Sunday															
7 a.m.-1 p.m.	1	-	1	1	1	5	4	4	4	4	-	-	-	-	-
1-6 p.m.	5	-	4	4	4	1	5	9	8	10	5	-	-	3	3
6-7 p.m.	2	-	1	2	2	3	-	-	2	2	6	3	-	3	6
7-11 p.m.	12	8	15	10	9	4	13	18	19	18	18	11	10	16	13
11-11:30 p.m.	7	-	-	6	5	0	-	-	8	7	6	-	-	4	5
11:30-1 a.m.	3	-	-	2	2	2	-	-	2	2	2	-	-	1	1

TABLE 5

Metro/DMA Ratings Station HTV

	MAY 198-					FEBRUARY 198-					JULY 197-				
				F	M				F	M				F	M
DAY/TIME	HH	2-11	12-17	18+	18+	HH	2-11	12-17	18+	18+	HH	2-11	12-17	18+	18+
Mon.-Fri.															
7-9 a.m.	6	-	-	3	4	5	-	1	3	2	4	-	-	5	3
9 a.m.-Noon	3	1	-	1	-	6	-	-	4	2	6	-	-	5	1
Noon-4:30 p.m.	3	-	1	2	-	4	-	2	3	1	3	-	-	3	-
4:30-6 p.m.	6	3	5	2	2	6	3	6	4	3	7	5	7	5	5
6-7:30 p.m.	10	2	4	7	8	12	6	4	10	7	15	2	2	11	10
7:30-8 p.m.	8	4	5	6	6	10	7	2	8	6	12	2	4	8	10
8-11 p.m.	13	7	9	10	10	15	8	11	11	10	12	7	9	10	8
11-11:30 p.m.	7	-	1	5	5	8	-	2	6	6	5	-	-	4	3
11:30-1 a.m.	4	-	-	3	3	4	-	-	2	3	3	-	-	2	3
Saturday															
9 a.m.-1 p.m.	6	5	3	2	4	2	7	3	1	1	7	5	2	3	6
1 p.m.-6 p.m.	5	2	2	2	4	3	-	2	1	3	5	2	4	2	5
6-7:30 p.m.	5	1	3	3	5	7	2	3	4	5	7	3	1	4	6
7:30-8 p.m.	5	8	2	3	3	10	10	6	7	8	7	4	2	7	7
8-11 p.m.	8	8	8	6	7	14	16	15	11	10	14	8	13	10	11
11-11:30 p.m.	4	1	2	2	3	9	1	2	6	7	7	-	4	6	6
11:30-1 a.m.	7	1	9	4	4	7	-	4	4	6	8	-	13	8	9
Sunday															
7 a.m.-1 p.m.	4	-	-	2	2	2	-	-	1	2	3	1	1	3	3
1 p.m.-6 p.m.	3	-	1	2	2	5	1	9	3	4	5	2	-	4	2
6-7 p.m.	6	2	2	6	5	7	5	5	6	5	3	1	2	3	-
7-11 p.m.	14	11	11	13	11	14	16	15	12	11	9	7	8	8	5
11-11:30 p.m.	8	-	-	6	6	7	-	6	5	5	3	-	-	3	3
11:30-1 a.m.	3	-	5	2	2	3	-	-	2	2	1	-	-	1	1

Audience ratings can now be used for placing PSAs on the three TV stations. When planning the use of TV and radio for their clients, advertising media planners frequently rely on advertising in a number of programs and accumulating a predetermined number of Gross Rating Points (GRPs). GRPs are the total ratings points achieved by two or more programs (or spots). One example: a spot run once on Station CTV during the Mon-Fri. (7-9 am) daypart received a rating of 5 (see Table 3, July, 197-). If played five days, the GRPs would total 25; another: program A achieves a 20 rating and program B gets a 15. The combined ratings equal 35 GRPs.

Note that the 25 GRPs do not mean that the message will be exposed to one-quarter of all TV households. Rather, by adding individual program ratings one can obtain ane estimate of total impressions the spot could achieve. In this example, one can estimate that the messages shown on CTV were seen by somewhere between 25 per cent of all households once (if each broadcast aired to an entirely different group of people), and 5% of all households five times (if the audience included the same people each time). Generally, the reach builds most quickly during the initial part of the campaign, while frequency increases over time.

SAMPLE TELEVISION PLAN

Table 6 shows a sample PSA weekly plan based on an expected use of 100 GRPs/week over a four-week period. This plan assumes that none of the stations will give the campaign any exposure during prime time (8-11 PM), which is when most stations make the bulk of their money and are usually sold out. The plan spreads the GRPs equitably among the three stations: CTV is asked for 34 GRPs, ATV for 33, and NTV is asked for 34. To insure greater equity, each could be the 33 GRP station one week. Since this hypothetical plan would spread the messages out across days and times, the planner could be assured of a wide reach. If run for four weeks, this total of 404 GRPs would reach 80% of TV households an average of five times each in the target communities. For adults 18+ roughly a 65% reach with a 3.7 average frequency can be projected.

If fewer GRPs/week are given, similar plans can be made for smaller numbers of points. The major problem is that, since air time is not being purchased, the planner is at the mercy of the good graces of the managements of the three stations. If nothing more, however, the planner can draw up media plans to designate in which dayparts messages should not be broadcast, so that their limited use would not be wasted. And, in all cases, audience estimates can be computed after spots have run to see, perhaps, if an awareness campaign did not work, it could have been because only 10-15% of the target population was exposed to it.

TABLE 6

SAMPLE PSA WEEKLY PLAN, 100 GRP/Week

A.	4 Daytime (7 a.m.-6 p.m.)	20
B.	2 Early News (6-7:30 p.m.)	15
C.	3 Prime Access (7:30-8 p.m.)	30
D.	2 Late News (11-11:30 p.m.)	15
E.	2 Late Night (11:30 p.m.-1 a.m.)	6
F.	3 Saturday/Sunday (7 a.m.-7 p.m.)	21
		100/Week
		X4 Weeks
		=400 GRPs

400 GRPs = 80% Reach with 5.0 Avg. Frequency
Adults 18+ = 65% Reach with 3.7 Avg. Frequency

TIME OF DAY	SAMPLE WEEK Station CTV	PTS
Daytime	9 a.m.-12 Noon	2
Early News	6-7:30 p.m.	6
Prime Access	7:30-8 p.m.	6
Late News	11-11:30 p.m.	2
Late Night	11:30-1 a.m.	2
Saturday	6-7:30 p.m.	12
Sunday	1-6 p.m.	4
		=34 GRP

TIME OF DAY	SAMPLE WEEK Station ATV	PTS
Daytime	7-9 a.m.	6
	Noon-4:30 p.m.	6
Prime Access	7:30-8 p.m.	7
Late News	11-11:30 p.m.	5
Late Night	11:30-1 a.m.	4
Sunday	1-6 p.m.	5
		=33 GRP

TIME OF DAY	SAMPLE WEEK Station NTV	PTS
Daytime	7-9 a.m.	5
Early News	6-7:30 p.m.	15
Prime Access	7:30-8 p.m.	14
		=34 GRP

STATION	GRP
CTV	34
ATV	33
NTV	34

101 GRP/WEEK x 4 WEEKS = 404 GRPs

RADIO

The frequency with which radio data is generated is also determined by the size of the market, ranging from 48 weeks per year for the largest markets, to quarterly, semi-annual and annual reports for markets of decreasing size. Frequently, interventions are planned for the cities closest to the center of the DMA. This lies within its "Metro" area, which is reported separately. Since our hypothetical area coincides with the metro area, we will use the metro data for this report.

Radio estimates are also based on ratings, share, and cume. One important difference is that household ratings are not computed for this out-of-home medium. Another is that broad time periods, rather than specific programs, are the key factors analyzed.

Table 7 provides a breakdown of the average quarter-hour ratings (Monday-Sunday, 6 am-midnight) for selected age groups and shows totals within these groups for adults (A), men (M), and women (F). As with television, Table 1 can be used to estimate the size of each of these particular groups.

The 18-49 and 25-54 groups can also be broken out if needed. Teens (12-17) are only reported in the aggregate; they cannot be broken out by sex. Note that the top three stations in each demographic group are starred to emphasize which stations have their predominant appeal with particular demographic groups.

The planner can use this table to more specifically target populations than can be done with television. For example, Station FRAD has a 5.6 average rating among the 18-34 group, and a .5 average among the 35-64 group, whereas Station QRAD has a .3 average rating with 18-34 year-olds and 1.8 among those 35-64. This shows that messages appealing to younger people would most likely have greater impact on FRAD, because this age group listens to this station more often than to QRAD. Station SRAD can be seen to have its appeal spread fairly evenly among different age groups. Tables 8, 9, and 10 show the average quarter-hour breakdowns for these three stations.

TABLE 7

Station Average 1/4-Hour Ratings, Monday-Sunday, 6 am - Midnight, by Demographic Group

Oct/Nov 197-

Station	18+			18-34			25-49			35-64			Teens
	M	F	A	M	F	A	M	F	A	M	F	A	
DRAD+(A)	1.5*	1.5*	1.5*	1.4*	2.7*	2.0*	2.0*	2.6*	2.3*	2.0*	2.0*	1.5*	1.7*
ERAD (A)	.7	.5	.6	.9	.5	.7	.7	.4	.5	.5	.7	.6	-
FRAD	3.4*	2.3*	2.9*	6.2*	4.8*	5.6*	2.0*	1.8*	1.9*	.2	.7	.5	4.4*
GRAD (A)	-	.3	.1	-	.2	.1	-	.4	.2	-	.5	.2	-
HRAD (A)	1.0	1.0	1.0	1.1*	1.5*	1.2*	.7	.4	.5	1.0*	.7	.9	3.7*
JRAD (F)	.4	.5	.4	.7	1.2	.9	.2	.4	.3	-	-	-	-
KRAD (F)	.1	-	-	-	-	-	-	-	-	.2	-	.1	.3
LRAD (F)	.7	.2	.4	.9	.2	.6	.7	.4	.5	.5	.2	.4	.7
MRAD+(F)	.1	.7	.4	-	1.5*	.6	-	.4	.2	.2	.2	.2	1.4
PRAD (A)	.1	.1	.1	.2	-	.1	.2	-	.1	-	-	-	-
QRAD (A)	1.3*	.9	1.1*	.4	.2	.3	1.3*	.9	1.1*	2.7*	1.0*	1.8*	-
RRAD (F)	.7	.8	.7	.9	1.2	1.0	1.1	1.1*	1.1*	.5	.5	.5	.3
SRAD (F)	1.0	1.1*	1.1*	.9	.5	.7	1.3*	.9	1.1*	1.0*	1.4*	1.2*	-

+ = Spanish Language (A)=AM Station (F)=FM Station

M= Male F=Female A=Adults

TABLE 8

Sample 1/4-Hour Estimates of Time Periods by Demographic Group, Station FRAD

Day/Time	18+			18-34			25-49			35-64			Teens
	M	F	A	M	F	A	M	F	A	M	F	A	
Mon-Fri													
6A-10A	2.8	2.9	2.8	5.0	6.3	5.5	2.2	1.8	2.0	.5	.5	2.1	3.4
10A-3P	3.6	3.6	3.6	6.4	7.3	6.8	2.8	3.3	3.1	.5	1.2	.9	2.4
3P-7P	2.9	3.2	3.0	5.3	7.0	6.1	2.4	2.2	2.3	.2	.5	.4	5.4
7P-12M	2.5	.7	1.7	4.6	1.5	3.3	1.3	.7	1.0	.2	.2	.2	4.1
Saturday													
6A-10A	3.2	3.0	3.1	5.3	5.8	5.5	2.4	2.2	2.3	1.0	1.2	1.1	1.4
10A-3P	6.5	2.9	4.7	12.1	5.6	9.3	2.8	3.5	3.2	2.2	1.2	.7	3.7
3P-7P	4.7	3.4	4.1	8.7	6.1	7.6	3.3	2.4	2.9	.2	1.9	1.1	3.1
7P-12M	2.9	.7	1.9	5.3	1.0	3.5	1.1	.7	.9	.2	.7	.5	4.4
Sunday													
6A-10A	1.8	1.1	1.5	3.2	2.2	2.8	.2	.4	.3	.2	.5	.4	6.1
10A-3P	6.0	2.6	4.3	11.4	5.1	8.7	2.0	1.8	1.9	-	1.0	.5	8.5
3P-7P	6.3	2.6	4.5	11.9	5.3	9.1	1.8	1.8	1.8	-	.7	.4	7.1
7P-12M	4.4	.3	2.4	8.4	.2	4.9	.2	.4	.3	-	.5	.2	4.4

TABLE 9

Sample 1/4-Hour Estimates of Time Periods by Demographic Group, Station QRAD

Day/Time	18+			18-34			25-49			35-64			Teens
	M	F	A	M	F	A	M	F	A	M	F	A	
Mon-Fri													
6A-10A	2.2	1.6	1.9	.5	.5	.5	2.8	1.8	2.3	5.0	2.4	3.6	-
10A-3P	2.5	1.7	2.1	.5	-	.3	3.3	1.8	2.5	5.7	2.6	4.1	-
3P-7P	1.3	1.0	1.2	.5	.2	.4	1.3	.9	1.1	2.5	1.4	1.9	-
7P-12M	.4	.2	.3	-	-	-	-	.2	.1	1.0	.2	.6	-
Saturday													
6A-10A	.5	.8	.6	-	-	-	-	.4	.2	1.0	1.2	1.1	-
10A-3P	.8	1.4	1.1	.4	.7	.5	.4	.9	.7	1.2	.7	1.0	-
3P-7P	.6	.5	.5	.2	-	.1	.2	.7	.4	1.0	.7	.9	-
7P-12M	.1	-	-	-	-	-	-	-	-	.2	-	.1	-
Sunday													
6A-10A	.7	1.1	.9	.7	.7	.7	.9	.9	.9	.7	1.2	1.0	-
10A-3P	.6	.7	.6	.2	-	.1	-	-	-	1.2	-	.6	-
3P-7P	.4	1.0	.7	.2	-	.1	-	.7	.3	.7	.7	.7	-
7P-12M	.2	.4	.3	-	-	-	-	-	-	.5	-	.2	-

TABLE 10

Sample 1/4-Hour Estimates of Time Periods by Demographic Group, Station SRAD

Day/Time	18+			18-34			25-49			35-64			Teens
	M	F	A	M	F	A	M	F	A	M	F	A	
Mon-Fri													
6A-10A	1.2	1.1	1.2	.9	-	.5	1.3	.9	1.1	1.5	1.9	1.7	-
10A-3P	1.7	1.5	1.6	1.8	1.0	1.4	2.8	1.5	2.2	1.5	1.7	1.6	-
3P-7P	1.6	1.4	1.5	1.4	.7	1.1	2.0	1.3	1.6	1.2	1.9	1.6	-
7P-12M	.9	.7	.8	.4	-	.2	.4	-	.2	1.5	.7	1.1	-
Saturday													
6A-10A	.7	.7	.7	-	-	-	.2	.2	.2	1.2	1.2	1.2	-
10A-3P	1.2	2.4	1.8	1.4	.2	.9	2.0	.9	1.4	1.0	2.6	1.8	-
3P-7P	1.1	.8	1.0	2.0	-	1.1	2.0	.4	1.2	.2	1.0	.6	-
7P-12M	1.6	.5	1.1	1.6	.5	1.1	1.3	.4	.9	1.7	.2	1.0	-
Sunday													
6A-10A	.7	1.2	.9	.5	.5	.5	.9	1.	1.0	.5	1.9	1.2	-
10A-3P	1.0	1.3	1.2	.7	.7	.7	1.5	1.	1.6	1.5	2.1	1.8	-
3P-7P	1.7	1.0	1.4	.5	1.0	.7	2.2	1.	1.8	3.0	1.2	2.1	-
7P-12M	.3	.7	.5	-	.2	.1	.2	.	.4	.7	1.0	.9	-

SAMPLE RADIO SPOT SCHEDULE

The particular time periods shown are those that are usually used when planning message placement. Note that "Prime Time" is different in radio than it is on TV. Normally, the prime times for adult radio listening are 6-10 am and 3-7 pm (morning and afternoon drive times) when many people are commuting in their cars. As can be seen in these tables, adult listening during the 7 pm-midnight period (TV prime time) is low relative to other radio usage times.

Using these tables, audiences can be targeted more specifically by age and sex. This data can be used to plan, and then analyze, delivery of the placement of radio PSAs with the same procedures used for television. Not only can the reach and frequency of impressions be estimated, but also these can be combined with television reach and frequency to yield a combined estimate, as will be shown later.

Table 11 shows a sample spot schedule for 60 GRPs per week using three stations. In this table, the left-hand column denotes the various dayparts, while the other columns denote the ratings for each spot on each station during particular dayparts. Again, the assumption is that the stations will cooperate, and that the flight will be four weeks. As with the TV schedule, the particular time placements of the PSAs are left to the discretion of each station's management, but at the very least, certain time periods to be avoided can be requested. Also, since this schedule shows two stations donating .3 GRPs more per week, the spot distribution could be planned more equitably throughout the flight.

TABLE 11

Sample Spot Schedule/60 Points/Week for 3 Stations/Adults 18+

Stations, FRAD, QRAD, SRAD

Day-Time		FRAD	QRAD	SRAD
Mon-Fri	6-10 am	2.8	1.9	1.2
	10am-3pm		2.1	1.6
			2.1	1.6
	3-7pm	3.0	1.2	1.5
			1.2	1.5
			1.2	
	7-12pm	1.7	.3	.8
			.3	.8
			.3	.8
			.3	
Sat	6-10am	3.1	.6	.7
			.6	.7
	10am-3pm	4.7	.6	.7
			1.1	1.8
			1.1	1.8
			1.1	
	3-7pm		.5	1.0
			.5	
	7-12pm			1.1
Sun	6-10am		.9	
	10am-3pm		.6	1.2
	3-7pm	4.5	.7	1.4
	7-12pm		.3	.5
			.3	.5
			.3	
	GRPs	19.8	20.1	20.1=60GRPs/wk
Total Spots		6	24	17=47

According to a reach and frequency manual, this schedule of 60 GRPs/week for four weeks will yield an estimated 53% reach with a 4.5 frequency against adults 18+.

NEWSPAPERS

There are two local daily newspapers in the intervention communities: the Daily Press and the People's Voice. Table 12 shows the circulation coverage for these papers, which can be used to compute rough Reach and Frequency estimates for print messages.

TABLE 12

Metro and County Newspaper Household Coverage by Editions

	Daily	Sunday
Daily Press	38.5%	36.4%
People's Voice	27.5%	
Total Gross Coverage	63.0%	

If one message is placed in each paper once, a 60% unduplicated Household Coverage for that one day can be computed. This 60% differs slightly from the 63% combined (gross) coverage, because some households receive both papers. Table 13 shows the estimated Reach and Frequency of this one-time simultaneous insertion.

TABLE 13

Estimated Reach and Frequency of One Insertion of Print Messages by Sex

	Men 18+	Women 18+	Adults 18+
Reach	53%	50%	52%
Frequency	1.2	1.1	1.2

The circulation data can be converted to yield approximate GRPs comparable to those for radio and television. Further, as with radio and TV, the GRPs, reach, and frequency of messages can be computed as insertions increase. With an insertion in these two papers, the GRPs delivered for Men 18+ is 62; for Women 18+ it is 57; and for Adults 18+ it is 60.

Table 14 shows how the reach increases with additional insertions.

TABLE 14

Reach of Newspaper Insertions for Selected Demographic Groups by Frequency of Insertion

	1x	2x	3x	4x	5x	6x	7x	Max.	Avg. GRPs
Men 18+	53	63	69	72	74	76	78	81	62
Women 18+	50	59	63	66	68	69	70	70	57
Adults 18+	53	61	66	69	71	73	74	76	60

Table 14 shows that the estimated reach among Men 18+ will be greater with repeated insertions than will the estimated reach against Women 18+. Five simultaneous insertions of print messages will yield an estimated 74% reach with a 4.2 frequency against Men 18+. The same five insertions against Women 18+ will yield an estimated 68% reach with a 4.2 frequency. In this case, the same number of insertions will be seen by more men than women (18+), but the average number of exposures will be the same for those who are exposed.

A combined media reach and frequency estimate for a four-week flight can now be computed. Combined reach across media can be determined through a standardized process of computing multiple ratings, and then eliminating duplication of people who utilize more than one medium. If, for example, both the TV and radio flights are mounted simultaneously, about 83% of Adults 18+ will be exposed to the messages and each person will see/hear them an average of 7.7 times each. By adding five exposures through the newspapers, the estimated combined reach against Adults 18+ will be 90+%; the estimated average frequency will be about 9.6.

CONCLUSION

The impact of channel factors has been the most overlooked aspect of planning public health information campaigns. This has been due, primarily, to the lack of helpful literature on the subject, as well as researchers' professed lack of expertise in making informed media planning decisions.

This paper has provided an overview of the mass media and presented two approaches to planning the use of the various media which should be at the planner's disposal. One approach has the luxury of a sizable campaign budget; the other shows that the mass media can be put to great advantage, even with a minimum of funds. In any case, audience delivery can always be estimated, given access to the appropriate resource materials.

As noted, through judicious planning, as well as with the cooperation of the media in the intervention communities, both broadly-based and specifically-focused media strategies are achievable. Unless the messages reach the targeted population with some degree of predictability, all other preparations for using mass media in the intervention will most likely accomplish little.

With media planning of the sort described here, the possibilites for reaching the target audience is enhanced, a quantifiable estimate of who was reached, and how often, is obtainable, and the chances for success of the campaign are increased.

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